AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1-6.   (Cancelled)

7.   (Currently Amended) A method for multi-reading a plurality of IDs, by which an interrogator and multiple transponders repeat queries and responses there-between in order to allow the interrogator to discriminate a unique ID given to each one of the transponders, the method comprising:

specifying, by the interrogator, a first read range of IDs in a first query;

responding, by a transponder, with an ID of the transponder, if the transponder has an ID within the first read range of IDs;

transmitting, by the interrogator, a second query specifying a second read range of IDs which is half a size of the first read range of IDs, if the interrogator receives a plurality of responses to the first query;

reading an ID of a responding transponder, if the interrogator receives a single response to the first query; and

if the interrogator does not receive a response to the first query, or receives only a single response to the first query, transmitting, by the interrogator, a second query specifying a second read range of IDs which is twice a size of the first read range of IDs, the second read range of IDs having a starting ID differing from a starting ID of the first read range of IDs,

wherein the method is repeated until a search for all possibly existing IDs has been completed,

the sizes of the first and second read ranges are defined by powers of two,

the first and second read ranges are specified by one of a start value and an end value, and an exponent value which sets a size of a read range of IDs, and

~~The method for multi-reading a plurality of IDs as described in claim 4, wherein~~ an end value E of a read range is calculated by the formula $E=S+2^e-1$ when the read range is specified by a start value S of the read range and an exponent value e.

8.   (Currently Amended) A method for multi-reading a plurality of IDs, by which an interrogator and multiple transponders repeat queries and responses there-between in order to allow the interrogator to discriminate a unique ID given to each one of the transponders, the method comprising:

specifying, by the interrogator, a first read range of IDs in a first query;

responding, by a transponder, with an ID of the transponder, if the transponder has an ID within the first read range of IDs;

transmitting, by the interrogator, a second query specifying a second read range of IDs which is half a size of the first read range of IDs, if the interrogator receives a plurality of responses to the first query;

reading an ID of a responding transponder, if the interrogator receives a single response to the first query; and

if the interrogator does not receive a response to the first query, or receives only a single response to the first query, transmitting, by the interrogator, a second query specifying a second read range of IDs which is twice a size of the first read range of IDs,

the second read range of IDs having a starting ID differing from a starting ID of the first read range of IDs,

wherein the method is repeated until a search for all possibly existing IDs has been completed,

the sizes of the first and second read ranges are defined by powers of two,

the first and second read ranges are specified by one of a start value and an end value, and an exponent value which sets a size of a read range of IDs, and

~~The method for multi-reading a plurality of IDs as described in claim 4, wherein~~ a start value S of a read range is calculated by the formula $S=E-2^e+1$, when the read range is specified by an end value E of the read range and an exponent value e.

9-11.   (Cancelled)

12.   (Currently Amended) A method for multi-reading a plurality of IDs, by which an interrogator and multiple transponders repeat queries and responses there-between in order to allow the interrogator to discriminate a unique ID given to each one of the transponders, the method comprising:

specifying, by the interrogator, a first read range of IDs in a first query;

responding, by a transponder, if the transponder has an ID within the first read range of IDs;

transmitting, by the interrogator, a second query specifying a second read range of IDs which is half a size of the first read range of IDs, if the interrogator receives a response to the first query and the first read range of IDs comprises more than a single ID;

reading an ID of a responding transponder, if the first read range of IDs comprises a single ID; and

if the interrogator does not receive a response to the first query, or if the interrogator receives a response to the first query and the first read range comprises a single ID, transmitting, by the interrogator, a second query specifying a second read range of IDs which is twice a size of the first read range of IDs, the second read range of IDs having a starting ID differing from a starting ID of the first read range of IDs,

wherein the method is repeated until a search for all possibly existing IDs has been completed,

the sizes of the first and second read ranges are defined by powers of two,

the first and second read ranges are specified by one of a start value and an end value, and an exponent value which sets a size of a read range of IDs, and

~~The method for multi-reading a plurality of IDs as described in claim 9, wherein~~ an end value E of a read range is calculated by the formula $E=S+2^e-1$ when the read range is specified by a start value S of the read range and an exponent value e.

13.   (Currently Amended) A method for multi-reading a plurality of IDs, by which an interrogator and multiple transponders repeat queries and responses there-between in order to allow the interrogator to discriminate a unique ID given to each one of the transponders, the method comprising:

specifying, by the interrogator, a first read range of IDs in a first query;

responding, by a transponder, if the transponder has an ID within the first read range of IDs;

transmitting, by the interrogator, a second query specifying a second read range of IDs which is half a size of the first read range of IDs, if the interrogator receives a response to the first query and the first read range of IDs comprises more than a single ID;

reading an ID of a responding transponder, if the first read range of IDs comprises a single ID; and

if the interrogator does not receive a response to the first query, or if the interrogator receives a response to the first query and the first read range comprises a single ID, transmitting, by the interrogator, a second query specifying a second read range of IDs which is twice a size of the first read range of IDs, the second read range of IDs having a starting ID differing from a starting ID of the first read range of IDs,

wherein the method is repeated until a search for all possibly existing IDs has been completed,

the sizes of the first and second read ranges are defined by powers of two,

the first and second read ranges are specified by one of a start value and an end value, and an exponent value which sets a size of a read range of IDs, and

~~The method for multi-reading a plurality of IDs as described in claim 9, wherein~~ a start value S of a read range is calculated by the formula $S = E - 2^e + 1$, when the read range is specified by an end value E of the read range and an exponent value e.

14.   (Cancelled)